

AMENDMENTS TO THE SPECIFICATION

Please replace the following paragraphs:

Page 5, line 22 to page 6, line 2.

Therefore a need exists to develop techniques for integrating the selection and operation of power from battery and system power sources commonly used to provide energy to portable information handling system components. More specifically, a need ~~exist~~ exists to develop tools and techniques for reducing operating conflicts in a portable device that is less expensive and more reliable than such systems and methods heretofore available. Accordingly, it would be desirable to provide tools and techniques for integrating the selection of battery and system power sources included in an information handling system absent the disadvantages found in the prior methods discussed above.

Page 6, line 7 to page 6, line 22.

The foregoing need is addressed by the teachings of the present disclosure, which relates to a system and method for integrating the selection and operation of power from battery and system power sources used to provide energy to portable information handling system devices. According to one embodiment, in a method for operating each smart battery included in a smart battery system, the smart battery is initialized prior to the smart battery being electrically coupled to the smart battery system. The smart battery system or an external power source is selected to provide power to an information handling system device. The smart battery includes a smart electronics device, a charge switch and a discharge switch. The smart electronics operates the charge and discharge switches to jointly control an operating condition of the smart battery in response to receiving a control input from

a controller of the device. The charge and discharge switches are closed in response to the smart electronics and the controller being in agreement to charge the first smart battery. The charge or the discharge switch is opened in response to either the smart electronics or the controller directing either of the switches to be opened.

Page 6, line 24 to page 7, line 11.

In one embodiment, a power supply system provides power to a portable information handling system device. The power supply system is connected to an AC adapter for deriving power from an AC power source. The power supply system includes a smart battery system having at least one smart battery, a battery charger and a power source selector. Each of the smart batteries included in the smart battery system is capable of being individually selected to be operable. Each of the smart batteries includes a smart electronics device, a charge switch, and a discharge switch. The smart electronics operates the corresponding charge and discharge switches to control an operating condition of the smart battery. The smart electronics is also operable to receive a control input from a controller included in the information handling system device to jointly control the operating condition. The charge and discharge switches of each of the smart batteries are operable to be closed in response to the corresponding smart electronics and the controller being in agreement to charge the corresponding smart battery. The battery charger is operable to receive charge from the AC adapter and provide the charge to a selected one of the smart batteries and the power source selector is operable to select either the smart batteries or the AC power source to provide the power to the device.

Page 11, line 4 to page 11, line 13.

FIG. 2 illustrates a diagrammatic representation of the smart battery system 110 including smart batteries 112 and 116, according to an embodiment. The first smart battery 112 includes a first smart electronics device 113, a first charge switch 114 and a first discharge switch 115. Similarly, the second smart battery 116 includes a second smart electronics device 117, a second charge switch 118 and a second discharge switch 119. In one embodiment, each of the switches 114, 115, 118 and 119 are implemented using MOSFET body diode devices. The MOSFET body diodes are advantageously used to minimize the impact of an accidental reverse connection of the battery 112 or 116 or other over-current causing conditions. The MOSFET body diodes are also useful to maximize the availability of power to the device 101.

Page 13, line 7 to page 13, line 20.

To advantageously reduce occurrences of operating conflicts during a charge operating condition switches 114 and 115 are closed when both, the smart electronics 113 and the controller 170, agree that the first smart battery 112 is in the charge operating condition. When both are in agreement the smart electronics 113 generates outputs, which result in closing switches 114 and 115, the outputs being transferred via control lines 182 and 183. In case of a disagreement, the logic i.e., the operating condition determined by the smart electronics 113 prevails. Operation of switches 118 and 119 is similar. For example, when the controller 170 instructs the first smart battery 112 to charge, but the first smart battery 112 is already fully charged, then the first smart battery 112 is able to override the request from the controller 170 to prevent an overcharge condition. Similarly, if the controller 170 instructs the first smart battery 112 to charge, but the battery 112 detects an over

current or over temperature condition, then the battery 112 is operable to disconnect itself and terminate the charge request.

Page 14, line 1 to page 14, line 8.

The smart battery system 110 described above advantageously improves the runtime of the device 101 operating in a battery-powered mode due to reduced losses in the discharge path. The system 110 includes a reduced component count, and hence occupies smaller board space compared to traditional systems thereby resulting in lower costs and higher system reliability. The system 110 having the first and second smart batteries 112 and 116, is operable to efficiently discharge and charge in parallel given appropriate switch controls for each of the switches thereby reducing system power dissipation.